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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,416	11/04/2003	Susumu Kurita	SONYJP 3.0-347	5820
530	7590	05/03/2007	EXAMINER	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			PERVAN, MICHAEL	
		ART UNIT	PAPER NUMBER	
		2629		
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		05/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/700,416	KURITA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael Pervan	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 February 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,5-7,11-13,17-19 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,5-7,11-13,17-19 and 23-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/1/04 7/31/06.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 7, 13 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claims 1, 7, 13 and 19, they recite "if the setting value would require said illumination controlling means to lower the illumination brightness to be below the predetermined range". This, however, goes against the restriction that the illuminating means be within a predetermined range. Since, the illumination means must be within in the predetermined range, the setting value cannot require the illumination controlling means to lower the illumination brightness to be below the predetermined range.

Therefore the claims are indefinite. For purposes of examination, it will be assumed that the illuminating means has a predetermined range, below which a stable discharge current cannot be maintained by said illuminating means, but is not limited to said predetermined range.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-7, 11-13, 17-19 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (EP 0,979,003; as submitted by applicant) in view of Cui (US 7,119,786).

In regards to claims 1, 13 and 19, Fukushima discloses (Fig. 1) an image display controlling apparatus for adjusting the contrast of an image (paragraph 17), said apparatus comprising:

discriminating means (camera-unit controller 17) for receiving an image signal (paragraphs 48 and 49; the discriminating means (camera-unit controller) receives an image signal (drive/control) from the display generating means (driver), which contains information about the picture being displayed), for discriminating a signal format of the image signal, the signal format including at least one of lightness of the image and color of the image (paragraphs 48 and 49; since the discriminating means (camera-unit controller) controls the lightness (contrast) and the brightness of the image signal via the controller means (display-unit controller), it must be able to discriminate which needs to be adjusted and by how much), and for generating a discrimination signal based on the result of said discrimination (paragraphs 48 and 49; since the discriminating means (camera-unit controller) is able to control the level adjustment means (picture processor) via the controller (display-unit controller), it must generate a control signal that is sent to the controller (display-unit controller));

controller means (display-unit controller 26) for receiving the discrimination signal and generating a control signal based on the received discrimination signal (paragraphs

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17, 48 and 49; the controller means (display-unit controller) controls the brightness and lightness (contrast) depending on the picture appearing on the LCD, via the discriminating means);

level adjustment means (picture processor 22) for receiving the control signal adjusting a luminance signal level of the image signal, based on the received control signal (paragraphs 17, 41, 48 and 49; level adjustment means (picture processor) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) to adjust the brightness and lightness (contrast) of the image appearing on the LCD);

display means (liquid-crystal panel 23a) for displaying an image in accordance with the adjusted luminance signal (paragraphs 18 and 19);

illuminating means (back-light 23b) for illuminating said display means (paragraph 44); and

illumination controlling means (back-light controller 25) for receiving the control signal and controlling the brightness of the illumination provided by said illuminating means based on the control signal (paragraphs 44 and 45; illumination controlling means (back-light controller) is controlled by the discriminating means (camera-unit controller) via controller means (display-unit controller) so that the picture appearing on the LCD has proper brightness, lightness (contrast) and illumination from the back-light);

Fukushima does not disclose the brightness of the illumination provided by said illuminating means being restricted to within a predetermined range below which stable discharge current cannot be maintained by said illuminating means and the control

signal including a setting value associated with a particular image contrast such that if the setting value would require said illumination controlling means to lower the illumination brightness to be below the predetermined range, said illumination controlling means instead maintains the illumination brightness within the predetermined range and said level adjustment means lowers the luminance signal level according to the setting value until the particular image contrast associated with the setting value is attained.

Cui discloses the brightness of the illumination provided by said illuminating means being restricted to within a predetermined range below which stable discharge current cannot be maintained by said illuminating means (Fig. 6 and col. 6, lines 29-36; since the illuminating means (backlight) is within a predetermined range (target display device target power), it can be adjusted. Outside of the predetermined range the luminance signal (display image brightness) is adjusted) and the control signal including a setting value associated with a particular image contrast such that if the setting value would require said illumination controlling means to lower the illumination brightness to be below the predetermined range, said illumination controlling means instead maintains the illumination brightness within the predetermined range (Fig. 6 and col. 6, lines 29-36; since the illuminating means (backlight) is within a predetermined range (target display device target power), it can be adjusted. Outside of the predetermined range the luminance signal (display image brightness) is adjusted) and said level adjustment means lowers the luminance signal level according to the setting value until the particular image contrast associated with the setting value is attained (Fig. 6 and

col. 6, lines 29-36; since the illuminating means (backlight) is within a predetermined range (target display device target power), it can be adjusted. Outside of the predetermined range the luminance signal (display image brightness) is adjusted).

It would have been obvious at the time of invention to modify Fukushima with the teachings of Cui, maintain illumination brightness in a predetermined range while adjusting the luminance signal level, because it allows for better power conservation since the illumination is more dependent on the luminance signal level and not the illuminating means, which uses more power.

In regards to claims 5, 17 and 23, Fukushima discloses the image display controlling apparatus according to claim 1, further comprising:

display image generating means (driver 24) for converting the image, which is in accordance with the adjusted luminance signal level into a signal matched to said display means (paragraph 52).

In regards to claims 6, 18 and 24, Fukushima discloses the image display controlling apparatus according to claim 1, wherein said display means is a liquid crystal display (paragraph 13).

In regards to claims 7, 11 and 12, they claim method steps paralleled to the structural means cited in claims 1, 5 and 6 respectively and are therefore rejected for the same reasons, see MPEP 2112.02 *In re King* ("When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process").

In regards to claim 25, Fukushima discloses the viewfinder device according to claim 19, wherein said controller means includes means for exchanging the control information with said imaging apparatus (paragraphs 48 and 49; the discriminating means (camera-unit controller) communicates with the controller (display-unit controller)).

Fukushima does not disclose the viewfinder device makes an inquiry to the imaging apparatus as to whether the imaging apparatus is controlling, to adjust the contrast of the displayed image, at least one of the brightness of the illumination and the luminance signal level of the image signal.

Cui discloses the viewfinder device makes an inquiry to the imaging apparatus as to whether the imaging apparatus is controlling, to adjust the contrast of the displayed image, at least one of the brightness of the illumination and the luminance signal level of the image signal (Fig. 6 and col. 6, lines 29-36; since the illuminating means (backlight) is within a predetermined range (target display device target power), it can be adjusted. Outside of the predetermined range the luminance signal (display image brightness) is adjusted).

It would have been obvious at the time of invention to modify Fukushima with the teachings of Cui, maintain illumination brightness in a predetermined range while adjusting the luminance signal level, because it allows for better power conservation since the illumination is more dependent on the luminance signal level and not the illuminating means, which uses more power.

***Response to Arguments***

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4. Applicant's arguments with respect to claims 1, 5-7, 11-13, 17-19 and 23-25 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art (Katada US 5,933,089) is deemed relevant since it discusses adjusting the contrast corresponding to the received light quantity of the LCD detected by a light sensor. Prior art (Miller et al US 6,411,306) is deemed relevant since it discusses continual adjustment of the luminance and contrast of a display unit according to changing lighting conditions.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Apr. 27, 2007

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

*Amr A. Awad*